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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,360	03/19/2004	Roger Farnholtz	1001.1690102	9216

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EXAMINER	
BHATIA, AARTI	

ART UNIT	PAPER NUMBER
4123	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/804,360	FARNHOLTZ, ROGER	
	Examiner	Art Unit	
	AARTI BHATIA	4123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 December 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *19-22,24-38 and 40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *19-22,24-38 and 40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 19, 20, 21, 22, 24, 26, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, and 40 rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,228,441 to Lundquist.

With respect to claim 19, Lundquist discloses a medical device, comprising: a tubular proximal shaft section (31) having a proximal end (32) and a distal end (33); a plurality of slits (41) defined in the proximal shaft section; wherein a greater number of slits are disposed near the distal end of the proximal shaft section than near the proximal end of the proximal shaft section (column 4, lines 20-37); a distal shaft section attached to the proximal shaft section (column 5, lines 12-24), the distal shaft section including a braid (54) attached to the distal end of the proximal shaft section; and a sheath polymer layer disposed over the proximal and distal shaft sections (46; column 4, lines 38-40).

With respect to claim 20, Lundquist discloses the medical device of claim 19, wherein the distal shaft section is deflectable (column 5, lines 33-36).

With respect to claim 21, Lundquist discloses the medical device of claim 19, wherein proximal shaft section has a longitudinal axis and wherein the slits are arranged generally perpendicular to the longitudinal axis (see figure 4).

With respect to claim 22, Lundquist discloses the medical device of claim 19. Lundquist does not discuss the stiffness levels of the proximal and distal shaft portions, however because the proximal shaft portion (slotted tube) and the distal shaft portion (braided member) are constructed differently, it is inherent that the stiffnesses of a slotted tube and a braided member are different.

With respect to claim 24, Lundquist discloses the medical device of claim 19, wherein the number of slits per unit length is greater near the distal end of the proximal shaft section than near the proximal end of the proximal shaft section (column 4, lines 20-37).

With respect to claim 26, Lundquist discloses the medical device of claim 19, wherein the proximal shaft section is a nickel-titanium alloy tube (column 9, lines 47-51).

With respect to claim 27, Lundquist discloses the medical device of claim 19, wherein the braid (54) partially overlaps with the distal end of the proximal shaft section (see figure 3).

With respect to claim 28, Lundquist discloses a medical device, comprising: a proximal shaft portion (31) having a proximal junction (32) and a distal junction (33); a plurality of slits (41) defined in the proximal shaft portion; a braid (54) attached to the distal junction and extending distally therefrom (column 5, lines 12-24); and a sheath

polymer layer disposed over the proximal shaft portion and the braid (46; column 4, lines 38-40).

With respect to claim 29, Lundquist discloses the medical device of claim 28, wherein the braid defines a distal shaft portion (figure 3, 54) and wherein the distal shaft portion is deflectable (column 5, lines 33-36).

With respect to claim 30, Lundquist discloses the medical device of claim 28, wherein the proximal shaft portion has a longitudinal axis and wherein the slits are arranged generally perpendicular to the longitudinal axis (see figure 4).

With respect to claim 31, Lundquist discloses the medical device of claim 28, wherein the braid defines a distal shaft portion (figure 3, 54). Lundquist does not discuss the stiffness levels of the proximal and distal shaft portions, however because the proximal shaft portion (slotted tube) and the distal shaft portion (braided member) are constructed differently, it is inherent that the stiffnesses of a slotted tube and a braided member are different.

With respect to claim 32, Lundquist discloses the medical device of claim 28, wherein a greater number of slits are disposed near the distal junction of the proximal shaft section than near the proximal junction of the proximal shaft section (column 4, lines 20-37).

With respect to claim 33, Lundquist discloses the medical device of claim 28, wherein the number of slits per unit length is greater near the distal junction of the proximal shaft section than near the proximal junction of the proximal shaft section (column 4, lines 20-37).

With respect to claim 35, Lundquist discloses the medical device of claim 28, wherein the proximal shaft portion is a nickel-titanium alloy tube (column 9, lines 47-51).

With respect to claim 36, Lundquist discloses the medical device of claim 28, wherein the braid (54) partially overlaps with the distal junction of the proximal shaft portion (see figure 3).

With respect to claim 37, Lundquist discloses a medical device, comprising: a slotted tubular member (31) having a plurality of slots (41) therein, the slotted tubular member having a proximal end (32), a distal end (33), and a longitudinal axis; wherein the slots vary in number, location, frequency, size, or depth so that the tubular member varies in stiffness between the proximal end and the distal end (column 4, lines 20-37); a braid (54) attached to the distal end of the tubular member and extending distally therefrom (column 5, lines 12-24); and a sheath polymer layer disposed over the tubular member and the braid so as to define a catheter shaft (46; column 4, lines 38-40).

With respect to claim 38, Lundquist discloses the medical device of claim 37, wherein the slots (41) defined are arranged generally perpendicular to the longitudinal (31) axis (see figure 4).

With respect to claim 40, Lundquist discloses a medical device, comprising: a catheter shaft including a proximal shaft portion (31) and a distal shaft portion (54); the proximal shaft portion having a proximal end (32), a distal end (33), a longitudinal axis, and a plurality of slots (41) defined therein that are arranged generally perpendicular (see figure 4) to the longitudinal axis; wherein the slots vary in number, location, and frequency so that the proximal shaft portion varies in stiffness between the proximal end

and the distal end (column 4, lines 20-37); the distal shaft portion including a braid (54) that is attached to and partially overlaps (see figure 3) with the distal end of the proximal shaft portion (31) and extends distally from the distal end of the proximal shaft portion (column 5, lines 12-24); and a sheath polymer layer disposed over the catheter shaft (46; column 4, lines 38-40).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.,* 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 25 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lundquist in view of U.S. Patent No. 5,437,288 to Schwartz.

Lundquist discloses the medical device of claims 19 and 28, and teaches that there can be variation in the number, frequency, and location of slits (column 4, lines

20-37) but fails to disclose wherein the depth of slits is greater near the distal end/junction of the proximal shaft section than near the proximal end/junction of the proximal shaft section.

Schwartz teaches a flexible catheter (figure 2), where the depth of slits (14) becomes greater when moving from the proximal end (11) to the distal end (12) (column 4, lines 5-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the flexible catheter of Lundquist with the variable depth slits of Schwartz because by increasing the depth of the grooves, the flexibility of the flexible portion nearest the distal end is increased (column 4, lines 8-11).

Response to Arguments

4. Applicant's arguments with respect to claims 19, 37, and 40 have been considered but are moot in view of the new ground(s) of rejection.

The Examiner has withdrawn the rejections of claims 19-41 under 35 U.S.C. §112, first paragraph based on the amended claims.

The applicant has amended independent claims 19, 37, and 40 to include limitations of dependent claims 23, 39, and 41, respectively. However, after further consideration the Examiner has cited prior art that anticipates or makes obvious all the claims currently presented.

Terminal Disclaimer

5. The terminal disclaimer filed on 21 December 2007, disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent No. 6,716,207, has been reviewed and is accepted. The terminal disclaimer has been recorded.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AARTI BHATIA whose telephone number is (571)270-5033. The examiner can normally be reached on Monday-Thursday 8:00am -6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Del Sole can be reached on (571) 272-1130. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AB

/Joseph S. Del Sole/
Supervisory Patent Examiner, Art Unit 4123